



ARIZONA STATE UNIVERSITY
GENERAL STUDIES COURSE PROPOSAL COVER FORM

Course information:

Copy and paste current course information from Class Search/Course Catalog.

Academic Unit College of Health Solutions Department Biomedical Informatics

Subject BMI Number 482 Title Capstone I Units: 3

Is this a cross-listed course? No
If yes, please identify course(s) _____

Is this a shared course? (choose one) If so, list all academic units offering this course _____
Course description: _____

Requested designation: Literacy and Critical Inquiry-L
Note- a separate proposal is required for each designation requested

Eligibility:

Permanent numbered courses must have completed the university's review and approval process.
For the rules governing approval of omnibus courses, contact the General Studies Program Office at (480) 965-0739.

Area(s) proposed course will serve:

A single course may be proposed for more than one core or awareness area. A course may satisfy a core area requirement and more than one awareness area requirements concurrently, but may not satisfy requirements in two core areas simultaneously, even if approved for those areas. With departmental consent, an approved General Studies course may be counted toward both the General Studies requirement and the major program of study.

Checklists for general studies designations:

- Complete and attach the appropriate checklist
- Literacy and Critical Inquiry core courses (L)
 - Mathematics core courses (MA)
 - Computer/statistics/quantitative applications core courses (CS)
 - Humanities, Fine Arts and Design core courses (HU)
 - Social and Behavioral Sciences core courses (SB)
 - Natural Sciences core courses (SO/SG)
 - Global Awareness courses (G)
 - Historical Awareness courses (H)
 - Cultural Diversity in the United States courses (C)

A complete proposal should include:

- Signed General Studies Program Course Proposal Cover Form
- Criteria Checklist for the area
- Course Syllabus
- Table of Contents from the textbook, and/or lists of course materials

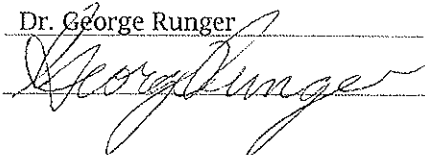
Contact information:

Name Laura Kaufman Phone 4-0234

Mail code 6520 E-mail: Laura.Kaufman@asu.edu

Department Chair/Director approval: (Required)

Chair/Director name (Typed): Dr. George Runger Date: 9/16/13

Chair/Director (Signature): 

Proposer: Please complete the following section and attach appropriate documentation.

ASU - [L] CRITERIA			
TO QUALIFY FOR [L] DESIGNATION, THE COURSE DESIGN MUST PLACE A MAJOR EMPHASIS ON COMPLETING CRITICAL DISCOURSE--AS EVIDENCED BY THE FOLLOWING CRITERIA:			
YES	NO		Identify Documentation Submitted
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CRITERION 1: At least 50 percent of the grade in the course should depend upon writing, including prepared essays, speeches, or in-class essay examinations. <i>Group projects are acceptable only if each student gathers, interprets, and evaluates evidence, and prepares a summary report</i>	BMI 482 Syllabus
1. Please describe the assignments that are considered in the computation of course grades--and indicate the proportion of the final grade that is determined by each assignment.			
2. Also: <div style="border: 1px solid black; border-radius: 50%; padding: 10px; margin: 10px 0;"> Please circle, underline, or otherwise mark the information presented in the most recent course syllabus (or other material you have submitted) that verifies this description of the grading process--and label this information "C-1". </div> C-1			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CRITERION 2: The composition tasks involve the gathering, interpretation, and evaluation of evidence	BMI 482 Syllabus
1. Please describe the way(s) in which this criterion is addressed in the course design			
2. Also: <div style="border: 1px solid black; border-radius: 50%; padding: 10px; margin: 10px 0;"> Please circle, underline, or otherwise mark the information presented in the most recent course syllabus (or other material you have submitted) that verifies this description of the grading process--and label this information "C-2". </div> C-2			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CRITERION 3: The syllabus should include a minimum of two substantial writing or speaking tasks, other than or in addition to in-class essay exams	BMI 482 Syllabus
1. Please provide relatively detailed descriptions of two or more substantial writing or speaking tasks that are included in the course requirements			
2. Also: <div style="border: 1px solid black; border-radius: 50%; padding: 10px; margin: 10px 0;"> Please circle, underline, or otherwise mark the information presented in the most recent course syllabus (or other material you have submitted) that verifies this description of the grading process--and label this information "C-3". </div> C-3			

ASU - [L] CRITERIA			
YES	NO		Identify Documentation Submitted
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CRITERION 4: These substantial writing or speaking assignments should be arranged so that the students will get timely feedback from the instructor on each assignment in time to help them do better on subsequent assignments. <i>Intervention at earlier stages in the writing process is especially welcomed</i>	BMI 482 Syllabus
1. Please describe the sequence of course assignments--and the nature of the feedback the current (or most recent) course instructor provides to help students do better on subsequent assignments			
2. Also: <div style="border: 1px solid black; border-radius: 50%; padding: 10px; margin: 10px auto; width: 80%;"> Please circle, underline, or otherwise mark the information presented in the most recent course syllabus (or other material you have submitted) that verifies this description of the grading process--and label this information "C-4". </div>			
C-4			

Course Prefix	Number	Title	Designation
BMI	482	Biomedical Informatics Capstone I	

Explain in detail which student activities correspond to the specific designation criteria. Please use the following organizer to explain how the criteria are being met.

Criteria (from checksheet)	How course meets spirit (contextualize specific examples in next column)	Please provide detailed evidence of how course meets criteria (i.e., where in syllabus)
1	<p>Each student will have 3 individual written assignments identifying and addressing key information for the Biomedical Informatics problem they are trying to solve, the available solutions, and the strengths and weaknesses of the potential solutions.</p> <p>Each student will be responsible for weekly/bi-weekly group reports and presentations, oral and written.</p> <p>Each student develop and produce a written project report by the end of the semester encompassing the entire semester of research.</p>	<p>See the highlighted section of the syllabus identifying points for the written assignments, group reports and presentations (oral and written) and written project report.</p> <p>These highlighted assessments comprise 60% of the total course grade. Additional writing is required during the design documentation.</p>
2	<p>Each student will gather information relative to the problem, interpret data and prior research, and evaluate possible solutions to the Biomedical Informatics problem selected.</p> <p>Each student will gather, interpret and evaluate peer research and presentations, evaluating evidence and providing feedback and evaluate possible solutions to a Biomedical Informatics problem.</p>	<p>See the highlighted section of the syllabus. Outlined are project design documentation, peer evaluations, and creating a project prototype.</p>
3	<p>Each student will complete 3 individual written assignments, in addition to a final written project report.</p> <p>Each student will also develop and present weekly/bi-weekly group reports and presentations, oral and written</p>	<p>See the highlighted portions of the syllabus.</p>

4	The individual written assignments, written project report and all other assignments throughout the semester will be graded immediately after being submitted and timely feedback will be provided.	See the highlighted portions of the syllabus.
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BMI 482 Biomedical Informatics, Capstone I

Course Syllabus

Instructor: Dr. George Runger, 480-884-0220

Office Hours: TBD

Class Meeting: TBD

Teaching Assistant: TBD

TA Office Hours: TBD

Textbook: *Biomedical Informatics. Computer Applications in Health Care and Biomedicine.* Edward H. Shortliffe, Editor and James J. Cimino, Editor.

Optional References: Additional Course readings to be determined

Prerequisites: Must be a senior BMI student and have completed ENG 101 with a C or Better, and **BMI 312** with a grade of B- or better.

Course Description: This class is the first of a two semester senior capstone project course. In BMI 482, students will plan the capstone project executed in the second capstone course, BMI 483.

Learning Objectives: Upon completing BMI 482, students will understand the requirements for **working collaboratively in a research context to gather requirements and clarify a problem in Biomedical Informatics, designing alternative solutions, selecting a best alternative, writing project communications including three 8-10 page written assignments and a 10-12 page final report, giving oral presentations, and possibly handling project focus changes. (C-2)**

Catalog Description: First of two courses in capstone sequence for biomedical informatics majors emphasizing the development of technical skills and effective team work within the context of a research project in biomedical informatics.

Course learning outcomes:

1. Plan and manage activities for a substantial biomedical informatics research project
2. Work collaboratively in a research context to gather requirements and clarify a problem
3. Critically analyze proposed solutions to a problematic
4. Use current techniques, skills and tools to design, implement and validate a solution to a biomedical informatics research problem
5. Communicate technical concepts and material effectively both orally and in writing.
6. Work effectively within the context of a research team.

Course assessment plan: (C-1)

Individual written assignments of 8-10 pages each (3) – 15%

These assignments will be assessed for prompt feedback (immediate oral feedback and 2-day turnaround in writing) in order for each student to make modifications needed relative to the development of the final project (C-4)

Weekly/bi-weekly group reports and presentations – oral and written – 15%

Project requirements and design documentation – 20%

Peer evaluations – 10 %

Project prototype – 10%

Written project report, 10-12 pages – 30%

These assignments will be assessed for prompt feedback (immediate oral feedback and 2-day turnaround in writing) in order for each student to make modifications needed relative to the development of the final project (C-4)

Grades will be assigned based on the scale 90%+ = A, 80%-89% = B, etc. Plus/minus grades will be assigned.

Major topics and time covered:

1. Requirements gathering and representation, reviewing use cases, tool selection (3 weeks)
2. Leadership and Team Building (2 weeks)
3. Oral and team presentations and peer assessment (1 week)
4. Laying out design alternatives and choosing those appropriate to project (3 weeks)
5. Creating a test plan and how to do an evaluation and select appropriate tools (3 weeks)
6. Resume writing and interviewing techniques (2 weeks)

Document History:

Course coordinator	Creation date	TAC approval date	UPC/GPC approval date

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